

10/583288

AP3 Rec'd PCT/PTO 16 JUN 2006

**FISHER ADAMS KELLY**

*Patent & Trade Mark Attorneys*

29/12 Creek Street  
Brisbane  
QLD 4000

GPO Box 1413  
Brisbane  
QLD 4001

Telephone: (07) 3229 2655  
Facsimile: (07) 3221 0597

ATTORNEY CODE: FK

OUR REF: 13824PC2-PMT/MMH

18 January 2006

The Commissioner of Patents  
WODEN ACT 2606

SIR

**INTERNATIONAL PATENT APPLICATION PCT/AU2004/001774**

**Owner: Anova Solutions Pty Ltd**

**Title: ROOT AND WATER MANAGEMENT SYSTEM FOR POTTED PLANTS**

We refer to the Written Opinion issued on 14 November 2005.

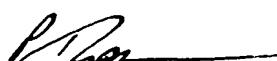
We request that claim 34 be amended as shown in the enclosed marked up and amended substitute page.

No new material is introduced.

We submit that the inclusion of "and an inwardly extending conduit adapted to resist root escape" defines the claim over the prior art citation.

Thank you for your assistance.

Yours respectfully  
**FISHER ADAMS KELLY**



**PAUL M. THOMPSON**

Encl: Marked up copies  
Amended copies

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**FISHER ADAMS KELLY**  
*Patent & Trade Mark Attorneys*

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Brisbane  
QLD 4000

GPO Box 1413  
Brisbane  
QLD 4001

Telephone: (07) 3229 2655  
Facsimile: (07) 3221 0597

**ATTORNEY CODE: FK**

OUR REF: 13824PC2-PMT/ADM

16 January 2006

The Receiving Office (RO/AU)  
IP Australia  
WODEN ACT 2606

SIRS

**INTERNATIONAL PATENT APPLICATION PCT/AU2004/001774**

**Owner: Anova Solutions Pty Ltd**

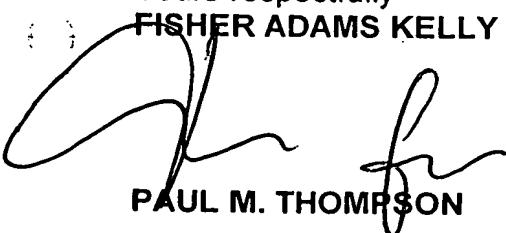
**Title: ROOT AND WATER MANAGEMENT SYSTEM FOR POTTED PLANTS**

We refer to the Written Opinion issued on 14 November 2005 in regard to the above application.

We hereby apply for an extension of time of **one (1) month** from **14 January 2006** to **14 February 2006** within which to file a response to the Written Opinion.

Yours respectfully

**FISHER ADAMS KELLY**

  
PAUL M. THOMPSON

**FEE PAYABLE: NIL**

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## FISHER ADAMS KELLY

*Patent & Trade Mark Attorneys*

29/12 Creek Street  
Brisbane  
QLD 4000

GPO Box 1413  
Brisbane  
QLD 4001

Telephone: (07) 3229 2655  
Facsimile: (07) 3221 0597

ATTORNEY CODE: FK

OUR REF: 13824PC2-PMT/TLA

14 October 2005

The Receiving Office  
IP Australia  
WODEN ACT 2606

SIR

### INTERNATIONAL PATENT APPLICATION PCT/AU2004/001774

Owner: Anova Solutions Pty Ltd

Title: ROOT AND WATER MANAGEMENT SYSTEM FOR POTTED PLANTS

We refer to the first Written Opinion dated 3 March 2005 in respect of the above application.

We request amendment of the claims to conform with the enclosed new claims pages 24 to 27.

The claim amendments introduce no new matter. The request for amendment is made without prejudice to the applicant's right to prosecute the deleted claims and subject matter of the claims in future in this application or applications derived from it.

We refer to the International Search Report and Written Opinion of the International Searching Authority issued on 3 March 2005. As the applicant has deleted claims to watering systems based on capillary mats, we respectfully submit that citations D6 to D9 are no longer relevant to the International Preliminary Examination of the present application. The amended claims highlight the feature that all embodiments of the invention are adapted to resist root escape.

We make the following submission in relation to documents D1 to D5.

#### D1 – FR 2766327 (Heurtas)

Heurtas discloses a block of spongy foam compressed to nest in a base or aperture of an inverted pot-type arrangement which is continuous with an outer water jacket. This citation discloses a complex arrangement which incorporates a pot which comprises a water jacket around a central inverted cone. The pot therefore includes the water

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reservoir and has no capacity to transfer liquid between the growth medium and a local environment external to the pot and adjacent the base wall. Rather, the inlet for liquid is through a conventional pipe arranged at the top of the water jacket. The Heurtas arrangement would lead to saturation of the growth medium within the device or, alternatively, under-hydration when the water jacket is empty. Further, the sponge would be immediately invaded by roots and eventually blocked.

It is respectfully submitted that Heurtas does not disclose any of the claims as currently amended.

**D2 – FR 2701808 (Lucas)**

Lucas again discloses a complex pot arrangement which incorporates its own water holding chamber in its lower region. A compressed sponge is located in a cylindrical tube which is then located through a hole in a plate above a water reservoir. There is no ability to transfer liquid between the growth medium and a local environment external to the pot and adjacent the base wall. Further, the sponge appears to exit into the growth medium approximately level with a dividing plate within the device. This clearly does not transfer liquid to and/or from an internal zone in the chamber, the internal zone spaced from the bottom wall. This sponge would also be invaded by roots.

We respectfully submit this citation does not anticipate any of the present claims.

**D3 – ML 9001748 (Kang)**

Kang discloses a tube inserted through a hole in a bottom of a flower pot, the water absorbent material secured inside the tube to deliver water to the growth medium in the pot. This device is not adapted for transferring liquid between the growth medium and a local environment external to the pot adjacent the base wall. The device includes a water-holding reservoir in the bottom in the form of bowl 7 and has legs or a wall 12, 13 which substantially raise the pot above the water level to provide the advantage of not blocking passage of air through earth to aid rooting. Therefore, the disclosed device must provide a local environment adjacent the base which is wall and does not include liquid. The tube is also heavily perforated and would be invaded by roots.

We respectfully submit that this disclosure does not anticipate any of the present claims.

**D4 – US 4219967 (Hickerson)**

Hickerson discloses an apparatus for supporting a flower pot and watering the contents thereof. The watering system uses a base having a liquid reservoir for holding water and water nutrients, a separate flower pot container has a bottom portion shaped to fit over the liquid reservoir and into the base. The disclosure is, therefore, to a self-contained device including a reservoir container within the arrangement. The device is complex. Further, roots would simply invade the wick.

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We respectfully submit that this disclosure does not anticipate the present claims.

**D5 – US 4324370 (Swisher)**

Swisher is directed to a self-watering planter with reduced evaporative losses. The planter includes a water reservoir with the wick and mat assembly positioned above the reservoir and a plant container dorsal to the absorbent mat. The plant container has a base with apertures for transfer of liquid into the growth medium from the mat. This device is clearly quite different from the claims of the present invention.

It is respectfully submitted that the present citation does not anticipate the claims as amended.

We look forward to receipt of the authorised officer's comments in reply.

Yours respectfully  
**FISHER ADAMS KELLY**

  
**PAUL M. THOMPSON**

Encl.

CLAIMS

1. A pot for growing a plant or plants, the pot comprising:
  - a side wall having an upper edge forming a mouth;
  - 5 a bottom wall continuous with the side wall, the bottom wall and side wall together defining a chamber for containing a growth medium; and  - liquid transfer means for transferring liquid between the growth medium and a local environment external to the pot and adjacent the base wall;
- 10 wherein
  - the liquid transfer means transfers liquid to and/or from an internal zone in the chamber, the internal zone spaced from the bottom wall, and the pot is adapted to resist root escape.
- 15 2. The pot of claim 1 wherein the liquid transfer means comprises one or more liquid transfer conduits.
3. The pot of claim 2 wherein each liquid transfer conduit extends upwardly from a base aperture in the bottom wall to an internal aperture positioned in the internal zone, the conduit open at each end.
- 20 4. The pot of claim 3 wherein each liquid transfer conduit is formed with a water-impervious side wall.
5. The pot of claim 4 wherein the liquid transfer conduit is cylindrical with a diameter in the range of 5mm to 50mm.
6. The pot of Claim 4 wherein each conduit extends inwardly in the range of 2mm to 80mm.
- 25 7. The pot of claim 4 further including retention means for retaining liquid transferring material in the liquid transfer conduit.
8. The pot of claim 7 wherein the liquid transferring material is one or more of a growth medium, coir dust, bark, polyester, and soil.
9. The pot of claim 8 wherein the conduit is dimensioned to receive the liquid transferring material under the influence of gravity.
- 30 10. The pot of claim 7 wherein the liquid transferring material is a solid, liquid-permeable plug.

11. The pot of claim 10 wherein the plug is an expanded plug having an inner end extending laterally beyond the side wall of a corresponding liquid transfer conduit.
12. The pot of claim 7 wherein the retention means is a mesh positioned in the base aperture.  
5
13. The pot of claim 12 wherein the mesh is removably positioned in the base aperture.
14. The pot of claim 12 wherein the mesh is formed integrally with the liquid transfer conduit.  
10
15. The pot of claim 3 wherein each liquid transfer conduit is formed integrally with the pot.
16. The pot of claim 4 wherein each liquid transfer conduit is formed as an inwardly extending slot.  
15
17. The pot of claim 16 wherein each slot has a side with a width in the range of 1mm to 5mm and a length in the range of 5mm to 60mm.
18. The pot of claim 17 further comprising a cap over an internal opening of the slot, the cap extending downwardly of at least one free edge of the internal aperture to form a tortuous pathway for liquid flow.  
20
19. The pot of claim 16 further including a material wick positioned in each slot.
20. The pot of claim 4 further comprising an internal cap adapted to cover the internal aperture, sufficiently loosely to allow liquid to pass between the cap and an edge of the aperture.  
25
21. The pot of claim 20 wherein the internal cap is substantially planar.
22. The pot of claim 21 wherein the cap extends downwardly over an edge of the internal aperture.
23. The pot of either one of claim 20 or claim 21 wherein the cap is hingedly connected to the liquid transfer conduit.
24. The pot of claim 1 wherein the liquid transfer means comprises one or more liquid permeable plugs each inserted through a corresponding base aperture and closely abutting a wall of the aperture.  
30
25. The pot of claim 24 wherein each liquid permeable plug is formed

from one or more of concrete, mortar, clay, rubber, polymeric material, wood and polyester.

26. The pot of claim 25 wherein each liquid permeable plug is cylindrical.
27. The pot of claim 25 wherein each liquid permeable plug includes a  
5 butt section which flares outwardly.
28. The pot of claim 24 wherein the liquid permeable plug is waisted to provide a seat for an edge of the base aperture.
29. The pot of claim 24 wherein a gap between the liquid permeable plug and the base aperture is 200 microns or less.
- 10 30. The pot of claim 29 wherein the gap is in the range of 50 to 100 microns.
31. The pot of claim 24 wherein each liquid permeable plug is removably fitted in its corresponding aperture.
32. The pot of claim 24 wherein each plug is held in position by wedges.
- 15 33. The pot of claim 3 wherein the bottom wall is substantially planar on its bottom surface.
34. A method of managing water content in a pot for growing one or more plants, the method comprising the step of:  
  
20 providing a transfer arrangement for transferring liquid directly to and/or from an internal zone of a growth medium inside the pot, the internal zone spaced from a bottom wall of the pot, and a local environment adjacent the bottom wall, the transferred liquid passing through a bottom wall.
35. The method of claim 34 further including the step of positioning material comprising growth medium in an inwardly extending conduit, the  
25 conduit having a first opening through the bottom wall and a second opening inside the internal zone, the material in the conduit acting as a liquid transfer material between the internal zone and local environment.
36. The method of claim 35 wherein providing a transfer arrangement includes the step of positioning a material wick in an inwardly extending  
30 conduit.
37. The pot of claim 1 further comprising a biocidal agent added to the liquid transfer means.

38. The pot of claim 37 wherein the biocidal agent is copper hydroxide.